

WHAT IS CLAIMED IS

- 10025109-121901
1. A thermal transfer sheet provided with an approval information showing that the thermal transfer sheet is approved as applicable to the predetermined printer, the approval information being able to be destructed by the energy applied from the outside.
 2. The thermal transfer sheet according to claim 1, wherein a mark which is coded from the approval information and can be destructed by the energy applied from the outside is provided with the thermal transfer sheet unseparatably with the thermal transfer sheet.
 3. The thermal transfer sheet according to claim 2, wherein the mark is provided at a front end of the thermal transfer sheet.
 4. The thermal transfer sheet according to claim 2, wherein the mark can be destructed by the energy applied from a recording part of a printer.
 5. The thermal transfer sheet according to claim 4, wherein the mark is provided on a position overlapping with a thermally transferable layer of the thermal transfer sheet at a front end of the thermal transfer sheet.
 6. The thermal transfer sheet according to claim 2, wherein the mark is detectable with the visible light.
 7. The thermal transfer sheet according to claim 2, wherein the mark is an invisible mark which can not be detected with the visible light.

8. The thermal transfer sheet according to claim 7, wherein the invisible mark is detectable by absorption or emission in response to an ultraviolet ray or an infrared ray.
9. The thermal transfer sheet according to claim 7, wherein the invisible mark has the electromagnetic properties to a microwave and, thereby, can be detected.
10. The thermal transfer sheet according to claim 7, wherein the invisible mark contains a magnetic material.
11. The thermal transfer sheet according to claim 7, wherein the invisible mark contains an electrically-conductive material.
12. The thermal transfer sheet according to claim 2, wherein the mark is a resonance circuit which makes a resonance with a received high-frequency wave to dispatch an echo wave.
13. The thermal transfer sheet according to claim 12, wherein the resonance circuit is provided with at least a dielectric material, a coil-like circuit disposed on one side of the dielectric material and a condenser electrode circuit or a coil-like circuit which also serves as a condenser disposed on the other side of the dielectric material and, at the same time, is formed by thermally transferring the coil-like circuit and the condenser electrode circuit or the coil-like circuit which also serves as a condenser by using an electrically-conductive layer transfer sheet having a thermally

transferable electrically-conductive layer and thermally transferring the thermally transferable electrically-conductive layer on the dielectric material in the predetermined pattern, and the resonance circuit is fixed to a front end of the thermal transfer sheet.

14. The thermal transfer sheet according to claim 12, wherein the resonance circuit is provided with at least a lead film which functions as a dielectric material, a coil-like circuit disposed on one side of the lead film and a condenser electrode circuit or a coil-like circuit which also serves as a condenser disposed on the other side of the lead film and, at the same time, is formed by thermally transferring the coil-like circuit and the condenser electrode circuit or the coil-like circuit which also serves as a condenser by using an electrically-conductive layer transfer sheet having a thermally transferable electrically-conductive layer and thermally transferring the thermally transferable electrically-conductive layer on the dielectric material in the predetermined pattern, and the lead film is connected to a front end of the thermal transfer sheet.

15. The thermal transfer sheet according to claim 2, wherein at least part of an electrically conducting path of the resonance circuit contains a low melting point metal which is meltable by the heat applied from a recording part of a printer.

16. A method of thermal transfer recording comprising the steps of:
setting on a printer a thermal transfer sheet which is provided with an approval information showing that the thermal transfer sheet is approved as applicable to the predetermined printer, the approval information being

able to be destructed by the energy applied from the outside;

confirming the approval information from a determinator; and,

interlocking the printer and a desructer with the determinator to work the printer in the state where the thermal transfer sheet is set thereon and, at the same time, apply the energy to the approval information from the destructor to destruct the approval information, when the determinator determines that the approval information is correct for the printer.

17. The method of thermal transfer recording according to claim 16, wherein a mark which is coded from the approval information and can be destructed by the energy applied from the outside is provided with the thermal transfer sheet unseparatably from the thermal transfer sheet, the determinator is made to detect the mark to determine the approval information and then the energy is applied to the mark from the destructor to destruct the mark.

18. The method of thermal transfer recording according to claim 17, wherein the mark is provided at a front part of the thermal transfer sheet.

19. The method of thermal transfer recording according to claim 17, wherein a recording part of the printer is worked as the destructor which is interlocked with the determinator, and the heat is applied to the mark from the recording part to destruct the mark.

20. The method of thermal transfer recording according to claim 19, wherein the mark is provided with a position overlapping with a thermally transferable layer of the thermal transfer sheet at a front end of the thermal

transfer sheet, an image receiving sheet is overlaid on the thermal transfer sheet and the heat is applied to the mark from the recording part and, thereby, the mark is destructed and the printing confirming that the mark has been destructed is performed on the image receiving sheet.

21. The method of thermal transfer recording according to claim 17, wherein the mark is detectable with the visible light.

22. The method of thermal transfer recording according to claim 17, wherein the mark is an invisible mark which can not be detected with the visible light.

23. The method of thermal transfer recording according to claim 22, wherein the invisible mark is detectable by absorption or emission in response to an ultraviolet ray or an infrared ray.

24. The method of thermal transfer recording according to claim 22, wherein the invisible mark has the electromagnetic properties to a microwave and, thereby, is detectable.

25. The method of thermal transfer recording according to claim 22, wherein the invisible mark contains a magnetic material.

26. The method of thermal transfer recording according to claim 22, wherein the invisible mark contains an electrically-conductive material.

27. The method of thermal transfer recording according to claim 17,

wherein the mark is a resonance circuit which makes a resonance with a received high-frequency wave to dispatch an echo wave.

28. The method of thermal transfer recording according to claim 27, wherein at least a part of an electrically conducting path of the resonance circuit contains a low melting point metal which is meltable by the heat from a recording part of a printer, and the resonance circuit is destructed by heating with the recording part.

29. A thermal transfer recording system comprising a printer, a determinator and a destructor,

wherein a thermal transfer sheet which is provided with an approval information showing that the thermal transfer sheet is approved as applicable to the predetermined printer and can be destructed with the energy applied from the outside is confirmed from the determinator, when the determinator determines that the approval information is correct for the printer, the printer and the destructor are interlocked with the determinator to work the printer in the state where the thermal transfer is set thereon and, at the same time, apply the energy to the approval information from the destructor to destruct the mark.

30. The thermal transfer recording system according to claim 29, wherein a mark which is coded from the approval information and can be destructed by the energy applied from the outside is provided with the thermal transfer sheet unseparably from the thermal transfer sheet and, when the determinator determines that the mark is correct for the printer, the printer and the destructor are interlocked with the determinator and the

printer works in the state where the thermal transfer sheet is set thereon and, at the same time, the destructor applies the energy to the mark to destruct the mark.

31. The thermal transfer recording system according to claim 30, wherein the mark is provided at a front end of the thermal transfer sheet.

32. The thermal transfer recording system according to claim 30, wherein a recording part of the printer works as the destructor which is interlocked with the determinator, and the recording part applies the heat to the mark to destruct the mark.

33. The thermal transfer recording system according to claim 32, wherein the mark is provided on a position overlapping with a thermally transferable layer of the thermal transfer sheet at a front end of the thermal transfer sheet, an image receiving sheet is overlaid on the thermal transfer sheet, and the printing is performed on the image receiving sheet while destructing the mark by applying the heat to the mark from the recording part.

34. The thermal transfer recording system according to claim 30, wherein the mark is detectable with the visible light.

35. The thermal transfer recording system according to claims 30, wherein the mark is an invisible mark which can not be detected with the visible light.

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36. The thermal transfer recording system according to claim 35, wherein the invisible mark is detectable by absorption or emission in response to an ultraviolet ray or an infrared ray.

37. The thermal transfer recording system according to claim 35, wherein the invisible mark has the electromagnetic properties to a microwave and, thereby, is detectable.

38. The thermal transfer recording system according to claim 35, wherein the invisible mark contains a magnetic material.

39. The thermal transfer recording system according to claim 35, wherein the invisible mark contains an electrically-conductive material.

40. The thermal transfer recording system according to claim 30, wherein the mark is a resonance circuit which makes a resonance with a received high-frequency wave to dispatch an echo wave.

41. The thermal transfer recording system according to claim 40, wherein at least a part of an electrically conducting path contains a low melting point metal which is meltable by the heat applied from a recording part of a printer, and the heat is applied from the recording part to destruct the resonance circuit.

42. A resonance circuit provided with at least a dielectric material, a coil-like circuit disposed on one side of the dielectric material and a condenser electrode circuit or a coil-like circuit which also serves as a

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condenser disposed on the other side of the dielectric material and, at the same time, is formed by thermally transferring the coil-like circuit, the condenser electrode circuit and the coil-like circuit which also serves as a condenser by using an electrically-conductive layer transfer sheet having a thermally transferable electrically-conductive layer and then thermally transferring the thermally transferable electrically-conductive layer on the dielectric material in the predetermined pattern.

43. A process for manufacturing a resonance circuit comprising the steps of:

overlaying an electrically-conductive layer transfer sheet having a thermally transferable electrically-conductive layer on one side of a dielectric material with the thermally transferable electrically-conductive layer facing with the dielectric material surface, and then thermally transferring the thermally transferable electrically-conductive layer on the dielectric material in the predetermined pattern to form a coil-like circuit; and,

overlaying the electrically-conductive layer transfer sheet on the other side of the dielectric material with the thermally transferable electrically-conductive layer facing with the dielectric material surface, and then thermally transferring the thermally transferable electrically-conductive layer on the dielectric material in the predetermined pattern to form a condenser electrode circuit or a coil-like circuit which also serves as a condenser.

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